REMARKS

The claims have been amended to correct their dependency and conformity with accepted U.S. practice and the specification has been changed to correct typographical errors. No new matter has been added.

Entry hereof is earnestly solicited.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

Lawrence S. Perry
Attorney for Applicants
Registration No. 31,865

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

LSP\ac

NY_MAIN

VERSION WITH MARKINGS TO SHOW CHANGES MADE TO SPECIFICATION

The paragraph at page 7, lines 3-12 have been amended as follows:

(wherein R^1 represents OH or acyloxy; R^2, R^3 and R^4, which may be the same or different, each represents H, OH or acyloxy; and Z^1 represents $OCOCH_2CH(CH_3)_2$ and Z^2 represents H, or Z^1 and Z^2 together represent =O, provided that at least one of R^1, R^2, R^3 and R^4 is OH) [hereinafter the compounds represented by formula (I) are referred to as Compounds (I)] in an aqueous solution containing no organic solvent, conjugating Compound (I) to a carrier substance by utilizing a substituent at the 3-position of the compound as a linker, and using the obtained conjugate as an immunogen.

The paragraph starting at page 9, line 27 and ending at page 10, line 5, has been amended as follows:

Mycotoxins of NIV group include nivalenol (NIV), 4-acetylnivalenol, 3,4-diacetylnivalenol, 4,15-diacetylnivalenol, 3,4,15-triacetylnivalenol, 4,7,15-triacetylnivalenol and 3,4,7,15-tetraacetylnivalenol; mycotoxins of DON group include deoxynivalenol (DON), [3-acetyldeoxynivalenol,] 3-acetyldeoxynivalenol, 15-acetyldeoxynivalenol, 3,15-diacetyldeoxynivalenol and 3,7,15-triacetyldeoxynivalenol; and mycotoxins of T-2 group include HT-2, T-2 and acetyl T-2.

The paragraph at page 15, lines 3-13 have been amended as follows:

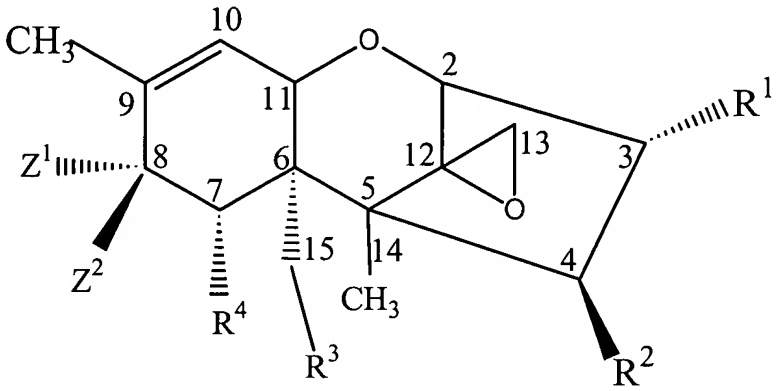
(wherein R^1 represents <u>O</u>H or acyloxy; R^2, R^3 and R^4, which may be the same or different, each represents H, OH or acyloxy; and Z^1 represents $OCOCH_2CH(CH_3)_2$ and Z^2 represents H, or Z^1 and Z^2 together represent O=, provided that at least one of R^1, R^2, R^3 and R^4 is OH) by converting at least one of the hydroxyl groups therein to acyloxy and binding a carrier substance to the carbon at the 3-position thereof, and fusing an antibody-producing cell obtained from the immunized animal with a permanent growth cell to obtain the hybridoma.

The paragraph at page 20, lines 19-24 have been amended as follows:

The method according to the above [(36) or] (37), wherein the water-soluble organic solvent is at least one member selected from the group consisting of methyl alcohol, ethyl alcohol, propyl alcohol, acetonitrile, dimethyl sulfoxide and dimethylformanide.

VERSION WITH MARKINGS TO SHOW CHANGES MADE TO CLAIMS

13. (Amended) A process for producing a hybridoma which produces the monoclonal antibody according to any of claims 1 to 6, which comprises immunizing an animal by administering to the animal a substance prepared from a compound represented by formula (I):



(I)

(wherein R^1 represents OH or acyloxy; R^2, R^3 and R^4, which may be the same or different, each represents H, OH or acyloxy; and Z^1 represents $OCOCH_2CH(CH_3)_2$ and Z^2 represents H, or Z^1 and Z^2 together represent =0, provided that at least one of R^1, R^2, R^3 and R^4 is OH) by converting at least one of the hydroxyl groups therein to acyloxy and binding a carrier substance to the carbon at the 3-position thereof, and fusing an antibody-producing cell obtained from the immunized animal with a permanent growth cell to obtain the hybridoma.

20. The immunoassay according to claim 18 [or 19], wherein the trichothecene mycotoxin is selected from the group consisting of deoxynivalenol (DON), nivalenol (NIV), T-2 toxin (T-2) and derivatives thereof.

21. (Amended) A method for determining the total amount of DON, NIV, T-2 and derivatives thereof in a sample, which comprises calculating the total amount from the value obtained by [the] an immunoassay [according to claim 18 or 19] using the monoclonal antibody or a fragment thereof according to claim 3 or 4 and the value obtained by [the] an immunoassay [according to claim 18 or 19] using the monoclonal antibody or a fragment thereof according to claim 5 or 6.

22. (Amended) A method for determining NIV and its derivatives in a sample, which comprises carrying out [the] an immunoassay [according to claim 18 or 19] using the monoclonal antibody or a fragment thereof according to claim 1 or 2.

23. (Amended) A method for determining DON, NIV and derivatives thereof in a sample, which comprises carrying out [the] an immunoassay [according to claim 18 or 19] using the monoclonal antibody or a fragment thereof according to claim 3 or 4.

24. (Amended) A method for determining DON and its derivatives in a sample, which comprises calculating the amount of DON and its derivatives from the value obtained by [the] an immunoassay [according to claim 18 or 19] using the monoclonal antibody or a fragment thereof according to claim 3 or 4 and the value obtained by [the] an immunoassay [according to claim 18 or 19] using the monoclonal antibody or a fragment thereof according to claim 1 or 2.

25. (Amended) A method for determining T-2 and its derivatives in a sample, which comprises carrying out [the] an immunoassay [according to claim 18 or 19] using the monoclonal antibody or a fragment thereof according to claim 5 or 6.

26. (Amended) The immunoassay according to claim 18 [or 19], wherein the immunoassay is selected from the group consisting of radioimmunoassay, enzyme immunoassay, fluoroimmunoassay and luminescence immunoassay.

27. The immunoassay according to claim 18 [or 19], wherein the immunoassay is selected from the group consisting of competitive immunoassay and sandwich immunoassay.

30. (Amended) A kit for immunoassay for determining a trichothecene mycotoxin, comprising the reagent according to claim 28, an antigen-immobilized solid phase plate, a labeled antibody or antibody fragment which reacts with the monoclonal antibody or a fragment thereof [according to any of claims 1 to 6], and a reagent for detecting the label of said antibody or antibody fragment.

34. A kit for immunoassay for determining a trichothecene mycotoxin, comprising the reagent according to claim 28, an antigen-immobilized solid phase plate, [a labeled] wherein the antibody or antibody fragment which reacts with the monoclonal antibody or a fragment thereof is labeled [according to any of claims 1 to 6], a reagent for detecting the label of said antibody or antibody fragment, and a solution for the pretreatment of a sample to convert a hydroxyl group in a compound represented by

formula (I) to a group represented by OR (wherein R has the same significance as defined above).

36. (Amended) A method for determining a trichothecene mycotoxin in a sample, which comprises treating the sample containing the trichothecene mycotoxin with a solution containing an organic solvent to extract the trichothecene mycotoxin from the sample, and determining the extracted trichothecene mycotoxin by the immunoassay according to claim 18 [or 19].

38. (Amended) The method according to claim 36 [or 37], wherein the water-soluble organic solvent is at least one member selected from the group consisting of methyl alcohol, ethyl alcohol, propyl alcohol, acetonitrile, dimethyl sulfoxide and dimethylformamide.